

# Current Scenario of Electronic Governance: An Analysis of Global Trends

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## Abstract

The research article seeks to assess the current global trends in the development and operation of electronic governance. Over the last two decades, infusion of technology into public governance seems to be riding high in governmental agenda globally. Against this backdrop, this study seeks to assess the extent and the crucial dynamics of e-governance developments across different countries of the globe. The study largely banks on the United Nations E-Government Survey 2014, 2016 and 2018. Data analysis has been driven by two chief indices viz. the E-Governance Development Index (EGDI) and Online Services Index (OSI), and through an interpretive approach, observations and insights on the assessed trends have also been presented. The study concludes that the global trend towards e-governance development is indeed encouraging. However, there is a stark unevenness or non-uniformity in the growth of e-governance infrastructure and opportunities along with public reception of digital facilities, from a regional perspective. The growth in the developed west is much more formidable than the pace of growth in the global south countries.

## Introduction

Since the last two decades, information and communication technologies (ICTs) have made inroads into almost every aspect of governance, commercial world and human existence. Information has exploded in volume and diversity. It is created, shared, and used in myriad ways that can generate both public and private value (Dawes,2008). To simply state, Electronic governance (E-governance) is reform in governance sought to be brought about by creative use of information and communication technologies (ICTs). Electronic governance or simply e-governance is a novel way of reinventing public administration towards simplification of government functioning and expanding the reach of governance. The Organization of Economic Cooperation and Development (OECD) defines e-government as “the use of information and communication technologies (ICTs), and particularly the Internet, as a tool to achieve better government” (OECD, 2003). E-government also refers to “the delivery of services and information, electronically, to businesses and residents, 24 hours a day, seven days a week” (Norris et al., 2001) The application of ICTs in governance amounts to four basic variants. ICTs may be used to ease and expedite flow of information between governmental entities (Government to Government or G2G). Technological intervention for creating a more convenient easily accessible interface between public and citizens (Government to Citizens or G2C) is another type of interaction in the e-governance structure. Application of electronic and technological tools for aiding businesses is another variant of e-governance interactions known as Government to Business or G2B. The final typology is Government to Employees or G2E which entails use of technology to facilitate a smoother interface between government and its vast workforce. The core

objective of this academic paper is to analyse the current global trends in the development of the praxis of e-governance. Digital technologies, such as the Internet, computers, and smartphones seem to be adopted by the population of Earth in an increasing rate. As of January 2018, the worldwide Internet penetration has passed the 50% mark; the proportion of people with a mobile phone is even higher with more than five billion people in the world owning a device (We Are Social Inc, 2018). Over the last two decades, infusion of technology into public governance seems to be riding high in governmental agenda globally. Against this backdrop, this study seeks to assess the extent and the crucial dynamics of e-governance developments across different countries of the globe. The interdisciplinary nature of this study converges interests of four diverse disciplines namely, polity, technological science, public administration and policy sciences. As such, findings of this study would be a significant contribution to current research on e-governance strategies.

## 1. Methodology

The study employs a comparative and descriptive research design. Data collection is based on secondary sources. The study largely banks on the United Nations E-Government Survey 2014, 2016 and 2018. Other reports and surveys of international organisations like United Nations and World Bank, journal articles, books pertaining to global digital governance development have also been consulted. Systematically collated data has been analysed to assess global as well as regional trends in e-governance development. Data analysis has been driven by two chief indices viz. the E-governance Development Index (EGDI) and Online service Delivery Index (OSI), and through an interpretive approach, observations and insights on the assessed trends have also been presented.

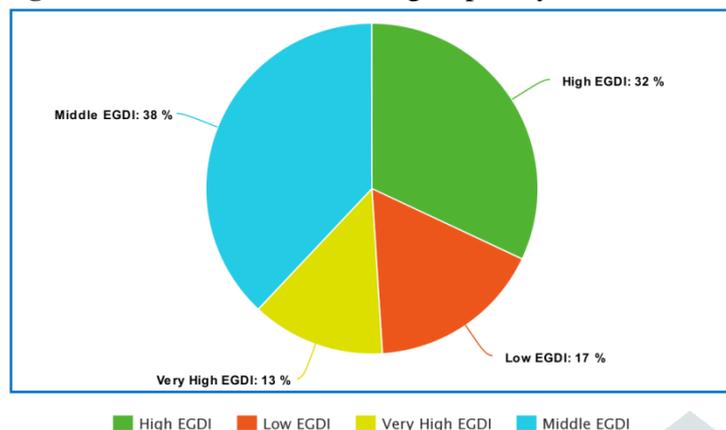
## 2. Findings and Discussion

### 2.1 Current Global Scenario of E-governance Development

The United Nations E-Government Development Survey serves as the only global initiative to assess and track how governments across the world are implementing steps towards securing a sound atmosphere of e-government practices in view of the larger goal of “good governance” which rides high on the international agenda in the contemporary times. Under this initiative, the United Nations Department of Economic and Social Affairs (UNDESA) measures the pace and praxis of e-governance development in member countries of the United Nations by generating an index dubbed as E-Governance Development Index(EGDI). The EGDI is measured by assessing a weighted average of three specific indices- Online Services Index (OSI) which appraises the status of e-governance in countries by taking into account the outreach capacity, approachability and quality of online services; the Telecommunications Infrastructure Index (TII), which is evaluated per hundred persons of a domestic population on the basis of sub-indices like mobile subscribers, internet users etc ; Human Capital Index (HCI) which is a The United Nations Educational, Scientific and Cultural Organization (UNESCO) prepared indicator of adult literacy rate, school enrolment ratio etc.(The Logical Indian,2018). The countries obtaining an EGDI score of more

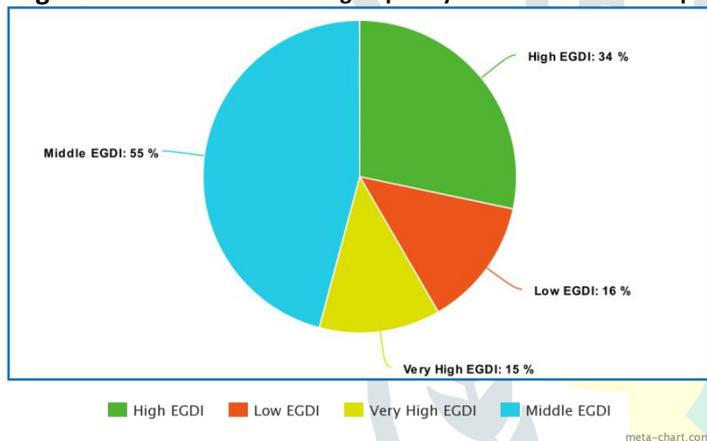
than 0.75 are grouped as “Very High EGDI” category, scores between 0.50 to 0.75 correspond to “High EGDI” category, a score between “0.25 to 0.50” is dubbed as “Middle EGDI” category and final grouping that is, “Low EGDI” corresponds to nations scoring less than 0.25.

**Figure 1:** Number of countries grouped by E-Government Development Index (EGDI) in 2014



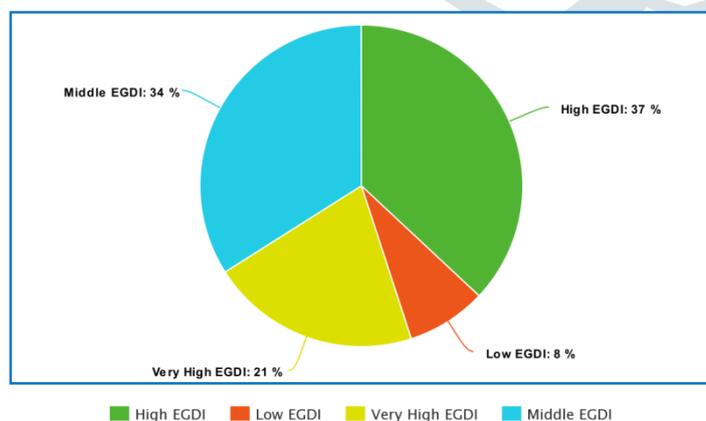
Source: United Nations E-Government Survey, 2014

**Figure 2:** Number of countries grouped by E-Government Development Index (EGDI) in 2016



Source: United Nations E-Government Survey, 2018

**Figure 3:** Number of countries grouped by E-Government Development Index (EGDI), 2018



Source: United Nations E-Government Survey, 2018

An analytical comparison between Figure 1, Figure 2 and Figure 3 clearly reveals that there has been a consistent and stable yet modest rise in number of countries featuring in the High and Very high EGDI groupings with the High EGDI slot registering a five percent increase and the Very High EGDI slot registering an even greater 8 % increase in number of nations over 2014 to 2018. The patterns of shifts in the middle EGDI countries have significant revelations. The four percent decrease in the countries in this

grouping has actually resulted from an elevation of a number countries towards the high EGDI slot. It is interesting to note that eight of the 17 new countries that moved from the Middle- to High-EGDI level group in 2018 belong to the small island developing States (SIDS) group, indicating that many SIDS are already well advanced in implementing e-government policies and strategies and incorporating these into their development plans and policies ( UNDESA,2018). In order to substantiate the soaring e-governance temper in these countries, it would imperative to selectively, look into the efforts put forth by these nations to secure this leap. Trinidad and Tobago, one of the eight countries to secure admittance into the High EGDI grouping, credits its success to the National ICT Plan 2014-2018, termed “smarTT” (Williams and Marius, 2016). This initiative is indeed an ambitious undertaking by the island nation which commits to achieving a vital and formidable E-governance structure informed of digital inclusion, innovation, rising incentives of e-business etc. Fiji which also upped its ranks in E-governance Development has formulated an elaborate digital transformation programme titled, “DigitalFiji” which is staunchly committed towards expediting internal governmental processes and efficiency and online public service delivery. Other countries registering the shift from low to middle EGDI category majorly belong to Asia and the Pacific with one exceptional transition from the continent of Africa. Ghana featured as the only country from Africa to register this transition. Ghana’s economy experienced dramatic growth in 2017 when its GDP increased by 8.5 percent, compared with 3.7 percent in 2016 (World Bank, 2008). Ghana’s dedication towards building a sound e-governance infrastructure has been clearly visible in its initiative Ghana Shared Growth and Development Agenda (GSGDA) which has as its vital component an ambitious Information and Communication Technology (ICT) strategy aiming towards doubling the utility of ICT across all sectors of governance, service delivery and business. As observed in Figure 1, 2 and 3, the percentage share of countries in the Low EGDI grouping has consistently come down, recording 17% in 2014, 16% in 2016 and 8% in 2018 which is indeed a substantial decrease. It must be noted here that even though this reflects a picture of a blossoming e-governance atmosphere, the regional digital divide that exists is a potent barrier to reckon with. More than 90% of countries in this group belong to African continent. Such developments drive us to ponder if the current positive global trend towards e-governance is actually staggeringly lopsided.

**Table 1: Leading countries in E-governance development in 2016 and 2018**

Country name	Region	EGDI	2016 Rank	2018 Rank
Denmark	Europe	.9150	9	1
Australia	Oceania	.9053	2	2
Republic of Korea	Asia	.9010	3	3
United Kingdom	Europe	.8999	1	4
Sweden	Europe	.8882	6	5
Finland	Europe	.8815	5	6
Singapore	Asia	.8812	4	7
New Zealand	Oceania	.8806	8	8
France	Europe	.8790	10	9
Japan	Asia	.8783	11	10
United States of America	Americas	.8769	12	11

Germany	Europe	.8765	15	12
Netherlands	Europe	.8757	7	13
Norway	Europe	.8557	18	14
Switzerland	Europe	.8520	28	15

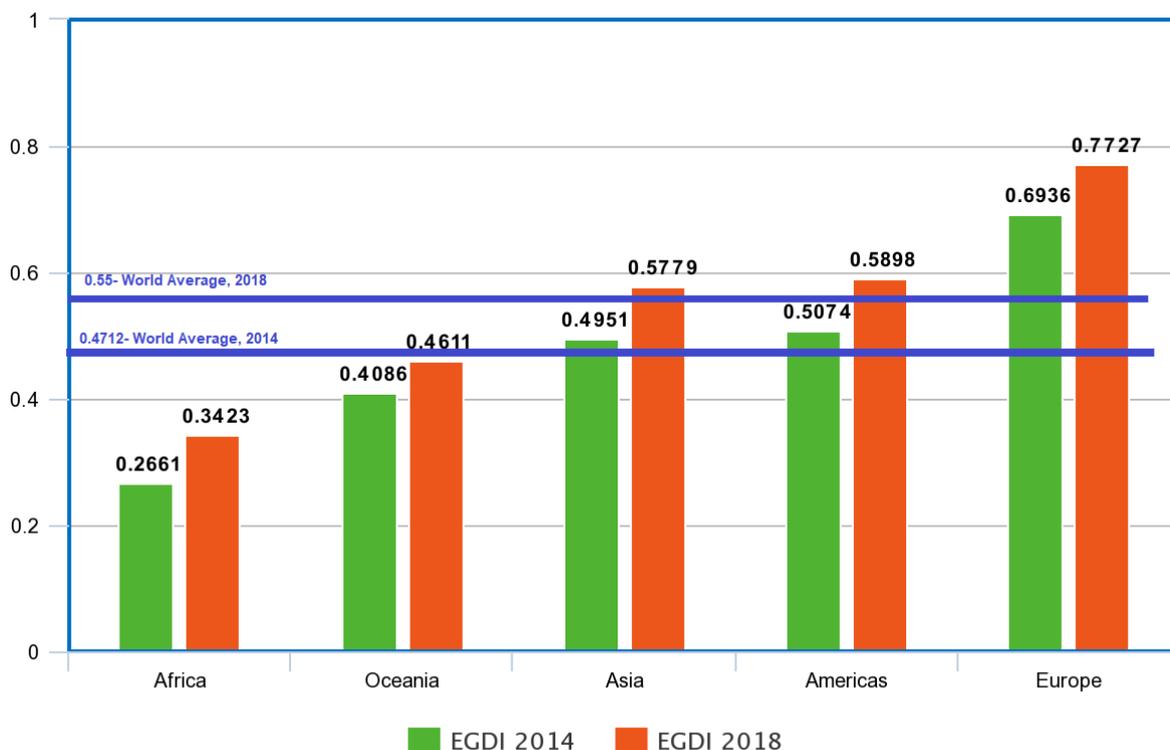
**Source: United Nations E-Government Survey, 2018**

Even with a perfunctory glance of the top performers in the field of e-governance practices (Table 1), we can readily arrive at the conclusion that it is the western developed nations that lead the way. The EGDI scores being a composite of productivity of human resources, technological infrastructure and higher incidence of technology usage among residents and their capability to participate in the information society, to achieve the spot of a top performer, it is required that the countries do well in all of these three areas. Denmark's rise as the topmost scorer in 2018 jumping up 9 places from 2016 can be basically attributed to its Digital Strategy 2016-2020. The unicity of this strategy is its exhaustiveness and inclusivity. The programme is flanked by two crucial aspects, "inclusive and thorough participation" and "strategic interaction". In order to manifest a new age Digital Denmark as envisaged by the Digital Strategy 2016-2020, efforts are streamlined to ensure proper and rigorous participation at all levels of governance. Digital Strategies are strived to be implemented in a holistic sense by the engagement of all parties from top to bottom, from central government to regions and municipalities. The aim has been to consociate administrative agencies, regional administrations as well as universities and hospitals into a unified mode of action. Such a strategy has enabled to sculpt a thoroughgoing digital environment in the country inside out (Digital Strategy 2016-2020). While most of the top performing countries remained stable in terms of ranks over the period of 2016 to 2018, Switzerland shows a different trend with its leap upwards over ten places to carve out its place in the global top fifteen ranking. Similar to Denmark's strategy, Switzerland's strategy for digital governance also banks on joint efforts at all levels for proper and efficacious implementation of digital development and infrastructure projects. In essence, the plan for securing an improved e-governance environment has been undertaken in Switzerland, as a joint undertaking of the Confederation, the cantons and the communes. Another important observation which can be made regarding Swiss e-governance strategy is that the Confederation undertakes consistent periodic evaluation of the programme, post-implementation, upgrading it to incorporate necessary changes based on policy evaluation feedback. Accordingly, since 2008, there have been two important upgrades, initially, in 2016 and the very recent "2020-2023 E-Government Strategy" which commits to achieve even greater strides in electronic governance at a global level. Three dominant trends have been perceived in the e-governance policy structure of the high scoring nations, firstly, multi-level collaboration for streamlining efforts and implementation of plans; secondly, inclusiveness marked by engagement of a wide range of relevant actors and agencies in the preparation as well as implementation of programmes and finally, adherence to the incremental model of policy-making where existing policies are periodically updated to incorporate changes and feedback from policy impact evaluation (Sapru, 2013).

### 3.2 Regional Trends in E-governance Development

There is a glaring disparity in the levels of good governance prevalent in the Global South as compared to Global North. The gamut of indices that exists to measure development levels across countries always bring in unsatisfactory results for the underdeveloped world. There are instances aplenty to substantiate this claim. There has been a spectacular decline in freedom and democracy in various countries like Burundi, Mali, Central African Republic, Bangladesh, Mozambique, Rwanda, Nicaragua etc (Freedom House, 2020). The human development levels in the countries of these regions also reveal a gloomy picture. For instance, countries like Central African Republic, Burkina Faso, Mozambique, Niger, Sierra Leone all of which belong to the African continent have been consistently placed in the bottom ten ranks of Human Development Index (HDI) scorings from 1990 to 2018 (Human Development Data, 1990-2018, UNDP). A similar pattern has been visible in the ratings of Gross National Income (GNI) in these countries as well. In the context of our analysis, such low levels of income and development has resulted in a consequential admixture that impairs the capacity of these regions to undertake and implement necessary efforts for electronic governance.

**Figure 4: 2014 and 2018 Regional Averages of E-government Development**



meta-chart.com Source:

#### United Nations E-Government Survey, 2018

Figure 4 certifies the glaring reality of the skewed nature of e-governance development in the world. Although e-governance practises and initiatives have risen in an overall manner, a regional perspective of e-governance development reveals the inequitable nature of such development. Even with the increase in world average of EGDI levels, the regions of Africa and Oceania have consistently underperformed while

the regions of Asia, Americas and Europe have surpassed the world average. The Africa region overall lags in e-government development compared to the rest of the world. While the share of African countries with improved EGDI scores expanded in 2018, the upward movement has mainly been from low to middle EGDI-level groups( UNDESA,2018). The project of building a sound e-governance environment necessitates an advanced telecommunication infrastructure supplemented by a technologically savvy society with sufficient means and material amid the domestic population to access the information society. The curse of the underperforming nations is its low levels of Gross National Income (GNI) compounded by low levels of human development as well as unstable political environment. Good governance initiatives like development of digital services essentially requires the economy to be in a sound footing which is a rare feature in most of the underdeveloped regions especially, Africa.

### 3.3 Current Scenario Online Public Service Delivery

One of the principal benefits of electronic governance is online interactivity among different stakeholders in governance. Online presence of governmental entities and channels through the medium of web pages, portals, websites, mobile applications has revolutionised the citizen-government interface. It has created an enabling environment for citizens in terms of expansion of availability and accessibility of public services (Fadia and Fadia, 2015).

**Table 2: Trends in Online Transactional Services**

Trends of transactional services online	2014	2016	2018	Increase in percent of countries offering the service 2014 to 2018
Pay for Utilities	41	104	140	71%
Submit income taxes	73	114	139	47%
Register a business	60	97	126	52%
Pay Fines	42	76	111	62%
Apply for a birth certificate	44	55	86	49%
Apply for Marriage certificate	39	53	82	52%
Register a motor vehicle	33	47	76	57%
Apply for Drivers licence	29	38	62	53%
Apply for personal identity card	27	31	59	54%

**Source: United Nations E-Government Survey, 2018**

The number of countries offering online public service delivery across various sectors, as observed in Table 2, has increased steadily over 50% in the time period between 2014 and 2018. All countries across the development spectrum have abundantly invested in shaping up the online public service delivery platforms. Notable examples from the developing world are Uruguay and India. The Government of Uruguay committed to the digitalization of all services by 2020 as a presidential goal ( UNDESA,2018). Since the

year 2014, India too has stepped up its efforts towards transforming into a Digital nation. To this end, various initiatives like the Digital India initiative, National Portal of India, Prime Minister of India portal, Aadhar, filing and payment of taxes online, digital land management systems, Common Entrance Test etc have been undertaken. The online Public Service Delivery component of E-governance structure and praxis has, therefore, received immense traction with countries across the development spectrum stepping up their G2C interactions in the form of portals for paying for public utilities etc.

From the above findings, the following crucial observations could be made:

- The spirit of moving towards an E-governance paradigm is adjudged to be high based on the percentage increase of number of countries included in the High and Very high EGDI levels. Countries across the development spectrum are evidenced to have made substantive investment towards electronic governance in their respective nations.
- Breaking the glass ceiling of African region's perennial lag in variety of development Indices, Ghana has emerged as one of the few countries from the underdeveloped south to make magnificent strides in e-government development.
- Top performers once again appertain to developed West with more than 90% of High-EGDI countries belonging to Europe and Americas.
- Dominant themes in well performing nations' e-governance policy structure are firstly, multi-level collaboration for streamlining efforts and implementation of plans; secondly, inclusiveness marked by engagement of a wide range of relevant actors and agencies in the preparation as well as implementation of programmes and finally, adherence to the incremental model of policy-making where existing policies are periodically updated to incorporate changes and feedback from policy impact evaluation (Sapru, 2013).
- Regional disparities in the levels of e-governance development is glaring, worst performer being the African region.

### 3. Conclusion

The study concludes that the global trends towards e-governance development is indeed encouraging. However, there is a stark unevenness or non-uniformity in the growth of e-governance infrastructure and opportunities along with public reception of digital facilities, from a regional perspective. The growth in the developed west is much more formidable than the pace of growth in the global south countries. This asymmetry can be lucidly explained by the global diffusion theory of e-governance. The extent to which e-governance develops in a country is a function of the collective national and local capital supplying IT services and of informal social and human capital creating a demand for e-governance (Rose, 2005). A far reaching diffusion of ICT capabilities in governance requires a strong blend of productive social, local and human capital. Global success of the project of broadening out electronic governance experience thusly, requires a nationally contextualised model or strategy of e-governance development keeping in mind the fact that ICTs are same everywhere but domestic economies and societies are vastly different from each other. A proliferation of an e-governance environment holds a promising future for public management especially, in developing countries which are ridden with problems of red tapism, unaccountability, bureaucratic lags, corruption etc. Electronic governance, it is hoped will pave the way towards an era of electronic democracy through its implements of accountability, responsiveness, citizen engagement and transparency.

## References

- Dawes, S. S. (2008). The Evolution and Continuing Challenges of E-Governance. *Public Administration Review*, 68, S86-S102.
- Robert Crane Williams Michele Marius
- Williams, R.C., Marius, M. (2016) Regional approaches to e-government initiatives in the Caribbean. *Studies and Perspectives*, United Nations Publication, Santiago, Chile
- OECD. (2003). The case of e-government: Experts from the OECD report: The e-government imperative. *OECD Journal on Budgeting*, 3(1), 62–96.
- Norris, F., Fletcher, P. D., & Holden, S. H. (2001). Is your local government plugged in? Highlights of the 2000 electronic government survey. Baltimore, MD: University of Maryland.
- We Are Social Inc. Digital in 2018: World's internet users pass 4 billion mark. 2018.<<https://wearesocial.com/blog/2018/01/global-digital-report-2018>>(accessed 10 June 2018).
- The Logical Indian. (2018, August 3). For The First Time, India Earns A Place Among The Top 100 Countries In The United Nations E-Government Development Index (EGDI). Retrieved from <https://thelogicalindian.com/story-feed/awareness/un-e-government-development/?infiniteScroll=1>
- United Nations Department of Economic and Social Affairs (UNDESA).(2018) United Nations E-Government Survey: Gearing E-Government to Support Transformation Towards Sustainable and Resilient Societies. Retrieved from [https://publicadministration.un.org/publications/content/PDFs/UN E-Government Survey 2018 English.pdf](https://publicadministration.un.org/publications/content/PDFs/UN_E-Government_Survey_2018_English.pdf)
- World Bank (2008) The World Bank in Ghana. Overview. (2008) Available at: <http://www.worldbank.org/en/country/ghana/overview#>
- Digital Strategy 2016-2020, Agency for Digitisation, Ministry of Finance, Denmark (n.d.). Retrieved from <https://en.digst.dk/policy-and-strategy/digital-strategy/>
- Sapru, R. K. (2013). *Public policy: art and craft of policy analysis*. Delhi: PHI Learning private Limited.
- Freedom House(2020). Freedom in the World,2020: A Leaderless Struggle for Democracy. Retrieved from [https://freedomhouse.org/sites/default/files/2020-02/FIW\\_2020\\_REPORT\\_BOOKLET\\_Final.pdf](https://freedomhouse.org/sites/default/files/2020-02/FIW_2020_REPORT_BOOKLET_Final.pdf)
- UNDP, Human Development Reports. Retrieved from <http://hdr.undp.org/en/data>
- Fadia, B.L., Fadia, K. (2015) *Public Administration: Administrative Theories and Concepts*. Agra,, Uttar Pradesh: Sahitya Bhawan.
- Rose, R. (2005). A Global Diffusion Model of e-Governance. *Journal of Public Policy*, 25(1), 5–27. doi: 10.1017/s0143814x05000279